



Climate change and Australian agriculture: A review of the threats facing rural communities and the health policy landscape

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Abstract:

Population health is a function of social and environmental health determinants. Climate change is predicted to bring significant alterations to ecological systems on which human health and livelihoods depend; the air, water, plant, and animal health. Agricultural systems are intrinsically linked with environmental conditions, which are already under threat in much of southern Australia because of rising heat and protracted drying. The direct impact of increasing heat waves on human physiology and survival has recently been well studied. More diffusely, increasing drought periods may challenge the viability of agriculture in some regions, and hence those communities that depend on primary production. A worst case scenario may herald the collapse of some communities. Human health impacts arising from such transition would be profound. This article summarizes existing rural health challenges and presents the current evidence plus future predictions of climate change impacts on Australian agriculture to argue the need for significant augmentation of public health and existing health policy frameworks. The article concludes by suggesting that adaptation to climate change requires planning for worst case scenario outcomes to avert catastrophic impacts on rural communities. This will involve national policy planning as much as regional-level leadership for rapid development of adaptive strategies in agriculture and other key areas of rural communities.

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Resource Description

Communication: ☒

resource focus on research or methods on how to communicate or frame issues on climate change; surveys of attitudes, knowledge, beliefs about climate change

A focus of content

Communication Audience: ☒

audience to whom the resource is directed

Policymaker

Exposure : ☒

weather or climate related pathway by which climate change affects health

Climate Change and Human Health Literature Portal

Ecosystem Changes, Extreme Weather Event, Food/Water Security, Food/Water Security, Temperature

Extreme Weather Event: Drought

Food/Water Security: Agricultural Productivity

Temperature: Extreme Heat

Geographic Feature: 

resource focuses on specific type of geography

Rural

Geographic Location: 

resource focuses on specific location

Non-United States

Non-United States: Australasia

Health Impact: 

specification of health effect or disease related to climate change exposure

Injury, Mental Health/Stress, Other Health Impact

Mental Health Effect/Stress: Stress Disorder, Other Mental Disorder

Other Health Impact: Well-being;Suicide

Intervention: 

strategy to prepare for or reduce the impact of climate change on health

A focus of content

Mitigation/Adaptation: 

mitigation or adaptation strategy is a focus of resource

Adaptation

Population of Concern: A focus of content

Population of Concern: 

populations at particular risk or vulnerability to climate change impacts

Children, Low Socioeconomic Status

Resource Type: 

format or standard characteristic of resource

Research Article

Resilience: 

capacity of an individual, community, or institution to dynamically and effectively respond or adapt to shifting climate impact circumstances while continuing to function

A focus of content

Timescale: ☒

time period studied

Time Scale Unspecified

Vulnerability/Impact Assessment: ☒

resource focus on process of identifying, quantifying, and prioritizing vulnerabilities in a system

A focus of content